

Instruction Manual for Models: MV-IND150, MV-IND150/230 Industrial Illuminators CR150, CR150/230 Clean Room Illuminators

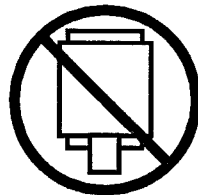
MV-IND150 MV-IND150/230

This is a 150 Watt, High intensity fiber optic light source, using a 21 V, EKE Lamp in a NEMA 13 steel industrial/factory enclosure for rugged industrial machine vision installation in adverse environmental conditions which include dust or lint particulate, external condensation, as well as water, oil and coolant spray.

Cooling and Hardware Installation Instructions

The MV-IND150 requires clean, dry compressed factory air at 5 psig/4scfm for cooling. A gauge and regulator with a 5 micron filter is provided for air input connection. If factory air contains noticeable levels of moisture or oil, additional water or oil filters may need to be installed. It is best to check for oil or water content prior to installation since either will result in decreased light output or physical damage to components.

Enclosure mounting is by (4) 0.31 thru holes at any angle except with the nosepiece in the 6 O'clock position.



All cooling input and output connections are 1/4 inch NPT. Exhaust air can be routed from the two street elbows to a desired or remote area. The 230 VAC version is shipped without a plug connector.

ALWAYS ASSURE THAT AIR PRESSURE IS PRESENT BEFORE TURNING LAMP ON! Lack of cooling air pressure will result in component failures.

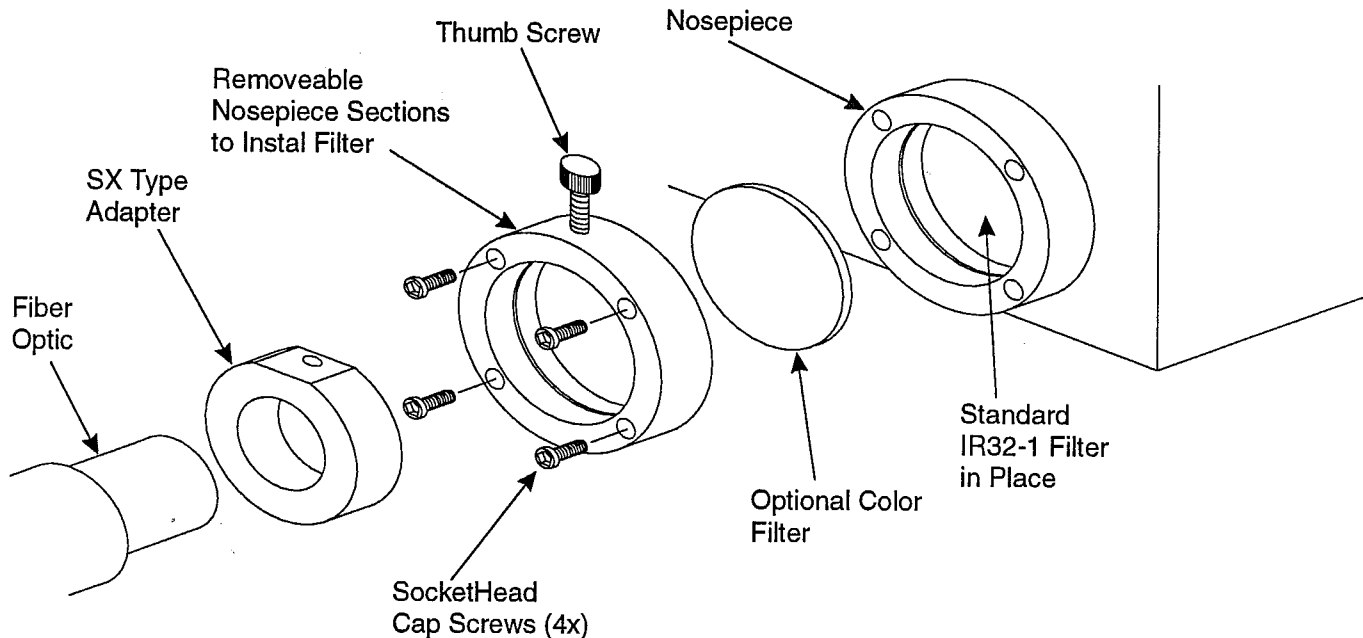
CR150 CR150/230

Used for Clean Room applications, this source requires a vacuum for cooling at 20 inch - 26 inch Hg with a user provided regulator. Use of vacuum precludes particulate matter contamination or Laminar flow disruption within a clean room. All other features and installation are similar to MV-IND150 units above.

ALWAYS ASSURE THAT VACUUM AIR FLOW IS PRESENT BEFORE TURNING LAMP ON! Lack of cooling vacuum will result in component failures.

INTENSITY CONTROL, COLOR FILTERING, ADAPTERS AND FIBER OPTIC INSTALLATION

Both models of illuminators have a rheostat light intensity control located within the enclosure to discourage arbitrary operator intensity changes and control the levels from 50% to 100% which are set by the applications engineer. Included on the unit is the MVFN-1 Dual Filter Nosepiece with an internal IR filter and an "O" ring provides a leak-proof seal. Space is provided for an optional 25mm x 2.5mm color filter (see FSA-3200 Filter Kit) for application additive or subtractive color filtering methods. Additional filters are inserted into the nosepiece by removing the first four socket head cap screws seen on viewing head-on the external portion of the nosepiece.



ADAPTERS

Adapters provide the greatest degree of application flexibility to interface the largest selection of fiber optics. The adapters fit into the illuminator nosepiece with the flat area facing up. From this flat area the adapter will have either an idler or a thru hole, slightly off center and the shortest dimension will face the illuminator on insertion. A thumb screw then actuates the idler or enters the thru hole to secure the fiber optic. For more secure fiber optic mounting a 6-32 x 1/2 socket head cap screw should be used instead of the thumb screw.

Insertion of the appropriate SX-___ or D-___ adapter and the applications specific fiber optic, then tightening with the provided screws in the filter nosepiece completes the installation of the enclosure.

ILLUMINATOR OPERATION

Application set up to determine a desired light level can be accomplished by:

1. Turn on either air pressure or vacuum to recommended settings.
2. Turn toggle switch for lamp to on.
3. Open unit door to access rheostat to control lamp intensity.

WARNING: The metal knob on rheostat may be hot if unit has been operating for a long time.

NOTE: The higher the intensity setting the shorter is the lamp life. A small reduction in light intensity (from 21 VAC to 20 VAC to lamp) doubles lamp life. At the halfway level (approximately 15-16 VAC) provides lamp life of up to 10,000+ hours can be achieved.

4. Once a light level is selected, close the door securely.

CHANGING THE ILLUMINATOR LAMP

Should the need arise to replace the EKE type lamp the following procedure should be used:

1. Unplug the illuminator from the wall socket.
2. Wait until the illuminator nosepiece is cool to touch.
3. Open the cover of the illuminator.
4. Use a clean cloth and pull up the EKE lamp to remove it from the lamp holder.
5. Remove the lamp from the socket.
6. Replace with a new EKE lamp.

CAUTION: Do not touch with your fingers either the inner quartz lamp envelope or the lamp pins. This will result in a significant shortening of lamp life. Handle the EKE lamp only by the dichroic reflector when attaching the lamp socket.

7. Reinsert lamp in lamp holder.
8. Close cover.
9. Insert plug in wall socket and if necessary check the alignment of the lamp.
10. The lamp holder is precision aligned on an angle at the factory for optimum lamp input into the fiber optic. Mark the position of the lampholder with a pencil if you need to remove or replace the lampholder.

PERFORMANCE STATEMENT

Dolan-Jenner Industries, Inc. (DJI) recognize that its illuminator products may be used under an almost unlimited variety of conditions. As such, we are prepared to assist the customer in the selection and application of any of these products. This includes application engineering, sample testing and other means as determined by DJI.

Where DJI has made a specific recommendation for its products, systems, or detection techniques (based on complete and detailed information furnished by the customer) we will extend every effort to assure that the customer is satisfied with the performance of our products. Continual development and improvement of DJI products may require changes in details that do not coincide with descriptions or illustrations shown. All fiber optic bundle diameters are nominal.

WARRANTY ON LIGHT SOURCES

Dolan-Jenner Industries, Inc. (DJI) warrants its products to be free from defective material and workmanship. Any light source or parts thereof which are determined by DJI to be defective within ten years (average product life cycle) from date of shipment will be replaced or repaired at our option. This policy is effective Nov. 1, 1993 and is not retroactive. All fiber optics are warranted for one year. This warranty specifically excludes both incandescent and quartz-halogen lamps, and optical filters.

Any products which in our opinion have been subject to misuse, neglect, incorrect wiring, or where installation procedures or use not in accordance with the instruction manual is determined, is excluded from this warranty. Nor does this warranty extend to products on which repairs or alterations have been made outside the factory, or on which the identification or serial number has been altered or to accessories not of our manufacture.

Our obligation with respect to products or parts covered by this warranty shall be limited to repair or replacement, F.O.B., Lawrence, Massachusetts. In no event shall DJI be held liable for consequential or special damages, or for transportation, installation, adjustment, or other expenses which may arise in connection with such products or parts. This warranty is in lieu of all other statements or warranties or guarantees, written or implied, by DJI or its authorized representatives.

REPLACEMENT PARTS

(Common Parts and Components for 115 VAC, 50/60 Hz Versions)

PART NUMBER	DESCRIPTION
02-015004-0000	Transformer
02-015904-0000	Lamp Holder-QEX-10M
02-023301-0001	Lamp Socket-QCX-34
02-013801-5001	Rheostat-50 ohms, 50W
02-018201-0001	Switch
IR32-1	IR Filter

(Components for 230 VAC, 50/60 Hz)

02-015004-0001	Transformer
02-013801-1502	Rheostat